

IN THE CLAIMS:

Please amend claims 2, 5, 6, 8, 12, 13, 15 and 16 as follows. Please add new claims 17-24 as follows. A detailed listing of all claims is as follows.

Claim 1 (Original): An image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images, the image change detecting apparatus comprising:

a dispersion value detecting device for detecting each of intra-field dispersion value in each field image;

a² an average direct current level detecting device for detecting each of intra-field average direct current levels in each field image; and

a detecting device for detecting whether or not the fade change occurs based on a change of the detected intra-field dispersion value and a change of the detected intra-field average direct current level.

Claim 2 (Currently Amended): The image change detecting apparatus according to claim 1, wherein the detecting device detects that the fade change occurs in the plurality of the continuous field images when the detected intra-field dispersion value and the detected intra-field average direct current level change linearly ~~altogether~~ relevant to a plurality of the continuous field images.

Claim 3 (Original): The image change detecting apparatus according to claim 1, wherein the detecting device detects that the fade change from the field images of single white color

occurs in the plurality of the continuous field images when the detected intra-field dispersion value has a positive gradient and changes linearly, and when the detected intra-field average direct current level has a negative gradient and changes linearly, relevant to the plurality of the continuous field images.

a²
Claim 4 (Original): The image change detecting apparatus according to claim 2, wherein the detecting device detects that the fade change from the field images of single white color occurs in the plurality of the continuous field images when the detected intra-field dispersion value has a positive gradient and changes linearly, and when the detected intra-field average direct current level has a negative gradient and changes linearly, relevant to the plurality of the continuous field images.

Claim 5 (Currently Amended): The image change detecting apparatus according to claim 1, wherein the detecting device detects that the fade change from the field images of single black color occurs in the plurality of the continuous field images relevant to the plurality of the continuous field images when the detected intra-field dispersion value and the detected intra-field average direct current level each ~~have~~ has a positive gradient and changes linearly.

Claim 6 (Currently Amended): The image change detecting apparatus according to claim 2, wherein the detecting device detects that the fade change from the field images of single black color occurs in the plurality of the continuous field images relevant to the plurality of the continuous field images when the detected intra-field dispersion value and the detected intra-field average direct current level each ~~have~~ has a positive gradient and changes linearly.

Claim 7 (Original): An image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images,

the image change detecting apparatus comprising:

a dispersion value detecting device for detecting each of intra-field dispersion value in each field image;

an average direct current level detecting device for detecting each of intra-field average direct current levels in each field image; and

a detecting device for detecting whether or not the fade change occurs based on a change of the detected intra-field dispersion value and a change of the detected intra-field average direct current level,

the image encoding apparatus further comprising:

an encoding device for changing an encoding parameter in encoding of the detected subsequent image information, thereby encoding the image, when it is detected that the fade change occurs.

Claim 8 (Currently Amended): The image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images according to claim ~~[[5]]~~ 7, wherein the detecting device detects that the fade change occurs in the plurality of the continuous field images when the detected intra-field dispersion value and the detected intra-field average direct current level change linearly ~~altogether~~ relevant to a plurality of the continuous field images.

Claim 9 (Original): The image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images according to claim 7, wherein the detecting device detects that the fade change from the field images of single white color occurs in the plurality of the continuous field images when the detected intra-field dispersion value has a positive gradient and changes linearly, and when the detected intra-field average direct current level has a negative gradient and changes linearly, relevant to the plurality of the continuous field images.

a²

Claim 10 (Original): The image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images according to claim 8, wherein the detecting device detects that the fade change from the field images of single white color occurs in the plurality of the continuous field images when the detected intra-field dispersion value has a positive gradient and changes linearly, and when the detected intra-field average direct current level has a negative gradient and changes linearly, relevant to the plurality of the continuous field images.

Claim 11 (Original): The image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images according to claim 7, wherein the detecting device detects that the fade change from the field images of single black color occurs in the plurality of the continuous field images relevant to the plurality of the continuous field images when the detected intra-field

dispersion value and the detected intra-field average direct current level each have a positive gradient and changes linearly.

a² Claim 12 (Currently Amended): The image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images according to claim 8, wherein the detecting device detects that the fade change from the field images of single black color occurs in the plurality of the continuous field images relevant to the plurality of the continuous field images when the detected intra-field dispersion value and the detected intra-field average direct current level each ~~have~~ has a positive gradient and changes linearly.

Claim 13 (Currently Amended): An image change detecting method for detecting an occurrence of a fade change in image information containing a plurality of field images, the image change detecting method comprising the processes of:

- detecting each of the intra-field dispersion values in ~~the~~ each field image;
- detecting each of the intra-field average direct current level in each field image; and
- detecting an occurrence of the fade change based on a change of the detected intra-field dispersion value and a change of the detected intra-field average direct current level.

Claim 14 (Original): The image change detecting method according to claim 13, wherein the process of detecting each of the intra-field dispersion values detects that the fade change occurs in a plurality of the continuous field images when the detected intra-field

dispersion value and the detected intra-field average direct current level change linearly relevant to the plurality of the continuous field images.

Claim 15 (Currently Amended): An information recording medium in which an image change detecting program is readably recorded by a computer included in ~~[[a]]~~ an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images, the image change detecting program causing the computer to function as:

a² a dispersion value detecting device for detecting each of the intra-field dispersion values in each field image;

an average direct current level detecting device for detecting each of the ~~intra-field~~ intra-field average direct current levels in each field image; and

a detecting device for detecting an occurrence of the fade change based on a change of the detected intra-field dispersion value and a change of the detected intra-field average direct current level.

Claim 16 (Currently Amended): The information recording medium according to claim 15, wherein the image change detecting program is readably recorded by the computer, the image change detecting program causing the computer to further function as:

the detecting device detects that the fade change occurs in the plurality of continuous field images when the detected intra-field dispersion value and the detected intra-field average direct current level change linearly ~~altogether~~ relevant to a plurality of the continuous field images.

Claim 17 (New): The image change detecting apparatus according to claim 1, wherein the intra-field dispersion value is a difference between luminance in each pixel contained in each of at least two field images configuring one frame image and an average value of the luminance in the each of at least two field images.

Claim 18 (New): The image change detecting apparatus according to claim 1, wherein the intra-field dispersion value has a linear behavior.

a²
Claim 19 (New): The image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images according to claim 7, wherein the intra-field dispersion value is a difference between luminance in each pixel contained in each of at least two field images configuring one frame image and an average value of the luminance in the each of at least two field images.

Claim 20 (New): The image encoding apparatus including an image change detecting apparatus for detecting generation of a fade change in image information containing a plurality of field images according to claim 7, wherein the intra-field dispersion value has a linear behavior.

Claim 21 (New): The image change detecting method according to claim 13, wherein the intra-field dispersion value is a difference between luminance in each pixel contained in each

of at least two field images configuring one frame image and an average value of the luminance in the each of at least two field images.

Claim 22 (New): The image change detecting method according to claim 13, wherein the intra-field dispersion value has a linear behavior.

Claim 23 (New): The information recording medium according to claim 15, wherein the intra-field dispersion value is a difference between luminance in each pixel contained in each of at least two field images configuring one frame image and an average value of the luminance in the each of at least two field images.

Claim 24 (New): The information recording medium according to claim 15, wherein the intra-field dispersion value has a linear behavior.
